SSGA Long-Term Asset Class Forecasts

September 30, 2019 | Market Commentary

Summary

Fixed Income	Bond prices continued to benefit from the largely disappointing economic data during the quarter. Worries about the global outlook were coupled with a significant deterioration in trade relations, most notably between the US and China. As growth concerns mounted, central bank policy pivoted abruptly towards a more dovish stance with both the Federal Reserve (Fed) and the European Central Bank (ECB) cutting rates during the quarter. Overall, the quarter's downward shift of sovereign yields across most of the globe brings current yields further below our long-term expected yields. This results in a lowering of our long-term forecast due to the price impact of rates needing to rise further to reach our long-term expected yields.
Equities	US equities made modest gains in Q3, despite ongoing growth concerns and uncertainty surrounding US-China trade. The growth concerns were most pronounced in August, when the Federal Reserve's conservative messaging around its policy response underwhelmed investors. Overall, continued rising US stock prices pushed equity valuations further above the long-term US historical average, while trailing price-earnings (P/E) ratios for non-US developed and emerging markets remained below their respective long-term averages. In general, there was a slight negative impact to our equity forecasts since the previous quarter due to the impact of lower future forecasted real growth.
Alternative	We continue to expect that, over the longer term, private equity will provide a modest illiquidity premium coupled with a higher long-term risk level comparable to that of small-cap equities, leading to a 7.2% return forecast. Additionally, over the long run, we forecast returns of Hedge Funds to be 6%, commodities to return 5.5%, and Global REITs to return 4.5%.

There can be no assurance that developments will transpire as forecasted and that the estimates are accurate.

Our longer-term asset class forecasts are forward-looking estimates of total return generated through a combined assessment of current valuation measures, economic growth, inflation prospects, yield conditions as well as historical risk premia. We also include shorter-term return forecasts that incorporate output from our multi-factor tactical asset allocation models. Outlined below is the process we use to arrive at our return forecasts for the major asset classes.

Inflation

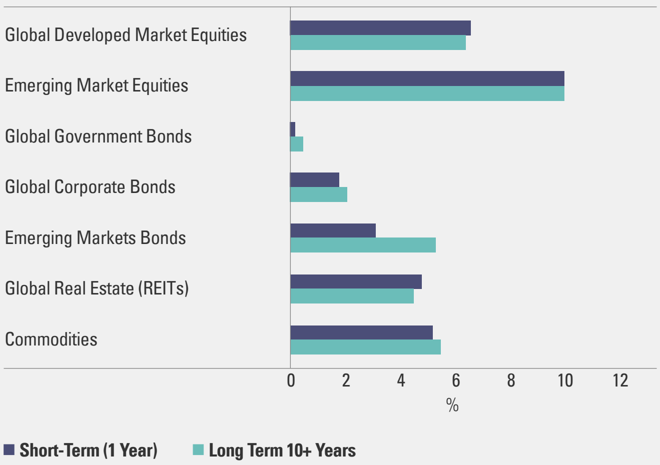
The starting point for our nominal asset class return projections is an inflation forecast. We incorporate both estimates of long-term inflation and the inflation expectations implied in current bond yields. US Treasury Inflation-Protected Securities (TIPS) provide a market observation of the real yields that are available to investors. The difference between the nominal bond yield and the real bond yield at longer maturities furnishes a marketplace assessment of long-term inflation expectations.

Inflation remained largely flat through the quarter. The annual inflation rate was at 1.7% in September 2019, slightly below market consensus of 1.8%, remains below the fed's target of 2%. Adding to that are the continued trade tension between US and China, and the Fed rate cuts of 25bps in both July and September. Both moves were expected, but the commentary accompanying the July cut, in particular, disappointed market expectations. As of the third quarter of 2019, our long-term inflation forecast for US remains at 1.9%.

Cash

Our long-term forecasts for global cash returns incorporate what we view as the normal real return that investors can expect to earn over time. Historically, cash investors have earned a modest premium over inflation but we also take current and forward-looking global central bank policy rates into consideration in formulating our cash forecast. Our

Figure 1: Forecasted Long-Term Annualized Return (%)



Source: State Street Global Advisors Investment Solutions Group as of 09/30/2019. Forecasted returns are based upon estimates and reflect subjective judgments and assumptions. These results were achieved by means of a mathematical formula and do not reflect the effect of unforeseen economic and market factors on decision-making. The forecasted returns are not necessarily indicative of future performance, which could differ substantially.

long-term cash return forecast is 2.5% for the US and 2.2% for the UK, providing a slight premium over inflation. However, current monetary policy priorities in many non-US developed countries are dictating that cash returns stay below expected inflation rates. To this end, our long-term cash return for the eurozone is 1.5%, reflecting a discount on our long-term inflation projections. Our long-term forecast for the US has come down by 25 basis points from previous quarters. Our long-term cash forecast for the eurozone has remained unchanged and so has the forecast for UK, while the short-term cash forecast has decreased by 10 basis points for both. Our short-term return forecasts for cash are derived from expected policy rates.

Bonds

Our return forecasts for fixed income are derived from current yield conditions together with expectations as to how real and nominal yield curves will evolve relative to historical precedent. We then build our benchmark forecasts from discrete analysis of relevant maturities. For corporate bonds, we also analyze credit spreads and their term structures, with separate assessments of investment-grade and high-yield bonds.

The quarter began on a largely flat note, with not too much movement from both the fixed income as well as the equity portion of the market. Risk-off sentiment then gripped the market on President Trump's announcement on August 2 that the United States would impose 10% tariffs on another US$300 billion worth of Chinese goods, leading to mounting fears surrounding global growth prospects. China retaliated by devaluing the yuan and USD/CNY breached the psychologically important level of 7.0. The elevated volatility led to some important milestones in bond markets. The US yield curve, measured using yields on the 10-year and 2-year notes, inverted for the first time since the Global Financial Crisis (GFC), and the 30-year Treasury bond yield sunk to an all-time low (below 2%) in late August and early September. These developments brought returns of 2.7% to the FTSE WGBI Index in August. The quarter also saw a sharp decline in the 10-year government bond yield from more than 2% in June to below 1.5% at one point, before ending the quarter at 1.67%.

In the US, our long-term return forecast has fallen to 1.8% for US Government Bonds and 1.6% for the short-term forecast, reflecting the reduction in interest rates over the quarter. The long-term US Investment Grade bond forecast is 2.2% as compared to 2.4% in the previous quarter, while High Yield bonds are expected to return 4.1%.

Globally, bond prices continued to benefit from the largely disappointing economic data during the quarter. Worries about the global outlook were coupled with a significant deterioration in trade relations, most notably between the US and China. As growth concerns mounted, central bank policy pivoted abruptly towards a more dovish stance with both the Fed and the ECB cutting rates during the quarter. Against this backdrop of sluggish economic data, political uncertainty and further policy easing from the ECB, investors sought safety, pushing the sovereign bond yields of core Eurozone nations lower. Germany's 10-year bond yield continued to fall below the ECB's deposit rate, ending the quarter 24bps lower at -0.57% while France's 10-year yield was down 27 bps at -0.27%. In the periphery, Italian BTPs led the advance with the 10-year bonds falling 126 bps lower to below 1.0% for the first time ever as signs of progress towards a new government bolstered confidence late in August.

Within the credit space, investment-grade corporates continued to benefit from declining rates and the subsequent search for carry. In the US, investment grade corporate benchmarks outpaced similar-maturity US Treasury benchmarks. European investment- grade credit returned 1.29% during the quarter. Global high-yield bonds also benefited from declining rates, albeit to a lesser degree than higher-quality corporates.

Overall, the quarter's downward shift of sovereign yields across most of the globe brings current yields further below our long term expected yields. This results in a lowering of our long term forecast due to the price impact of rates needing to rise further to reach our long-term expected yields.

Equities

The foundation for our long-term equity market forecasts are estimates of real return potential, derived from current dividend yields, forecast real earnings growth rates, and potential for expansion or contraction of valuation multiples. Our enhanced forecasting method incorporates long-run average estimates of potential economic growth based on forecasted labor, capital and productivity inputs to estimate real earnings growth. Across both developed and emerging markets, variations in labor, capital and productivity levels result in region-specific differences in our estimates for real earnings growth, allowing for more region-appropriate forecasts for both developed and emerging market equities.

US equities made modest gains in Q3, despite ongoing growth concerns and uncertainty surrounding US-China trade. The growth concerns were most pronounced in August, when the Federal Reserve's conservative messaging around its policy response underwhelmed investors. Less economically sensitive areas of the market generally performed more strongly. Utilities, real estate and consumer staples were amongst the quarter's better performers. Energy and materials were weaker areas of the market, given expectations of a more challenging demand environment. Continued rising US stock prices pushed equity valuations further above the long-term US historical average this quarter, while trailing price-earnings (P/E) ratios for non-US developed and emerging markets remained below their respective long-term averages. Further, using five-year peak inflation-adjusted earnings, developed market (DM) and emerging market (EM) equity P/E ratios remained lower than those for the US, providing a relatively favorable long-term valuation backdrop for non-US stocks.

In general, there was a slight negative impact to our equity forecasts since the previous quarter due to lower future forecasted real growth. Over the long term, we expect US mid-cap and small-cap markets to each earn a modest premium of 0.3% to 0.5%, respectively, over our current

US large-cap forecast of 6.2%. Emerging market equities should provide higher earnings growth rates than developed large-cap markets and we therefore project that the asset class will earn higher returns. It is important to note that we are not incorporating currency fluctuations as part of our forecasts. Over the long term, the effects of short-term currency fluctuations should cancel out, producing a limited impact on returns.

Smart Beta

The four smart beta factors begin with the MSCI World universe and are then reweighted toward selected factors. These factors include value-tilted, quality-tilted, managed volatility (minimum variance), and an equal-weighted portfolio (to capture the historical 'small-cap' premium). Empirically, exposure to valuation, quality, low volatility and small size have generated positive excess returns over the cap-weighted index; we continue to expect there will be a premium to owning these factors over the long term.

Over a one- to three-year forecast horizon, we look to see how cheap each factor is relative to its own history. Specifically, we focus on book/price spreads for each factor and relate that to their subsequent returns. We find that valuation ratios are useful for forecasting market returns. Using these relationships, we forecast an intermediate-term return premium of 2.2% for the value-tilted portfolio, 1.6% for the quality-tilted portfolio, 1.1% for the minimum-variance portfolio, and 2.3% for the equal-weighted portfolio.

Private Equity

Our long-term forecast for private equity is based upon past performance patterns of private equity funds relative to listed equity markets and our extrapolation of these performance patterns on a forward basis. According to several academic studies[1,2] the annual rate of return of private equity funds over the long term appears to be largely in line with that of listed equities, with outperformance relative to listed equities before fees, but relative underperformance after fees. Some more recent academic studies[3] find better results, especially for buyout funds. Before fees, we believe that an average private equity fund can outperform small-cap listed equities by perhaps 0.5% over the long run. All else being equal, this makes our long-term forecast for private equities not considerably different to our projections for small-cap stocks, but we also consider additional factors, including financial conditions and capital availability. Because private equity firms have enjoyed available and affordable capital, and have recently realized record-high valuation multiples, our return forecast continues to reflect a more competitive return environment. Since private equity funds tend to use ample leverage and are often much less liquid than publicly traded investments, we rate the long-term risk level of private equity as higher than that of small-cap equities.

REITs

REITs have historically earned returns between bonds and stocks due to their stable income streams and potential for capital appreciation. Our long-term forecasts for US and global REITs are 4.9% and 4.5%, respectively, whereas in the shorter term, we expect the asset class to yield 5.2% in the US, & 4.8% in the global markets.

Commodities

Our long-term commodity forecast is based on the level of world GDP, as a proxy for consumption demand, as well as on our inflation outlook. Additional factors affecting the returns to commodity investors include how commodities are held (e.g., physically, synthetically, or via futures) and the various construction methodologies of different commodity benchmarks. Futures-based investors have the potential to earn a premium by providing liquidity and capital to producers seeking to hedge market risk. This premium is greatest when the need for hedging is high, driving commodities to trade in backwardation, with future prices that are lower than spot prices. When spot prices are lower, however, the market is said to be in contango, and futures investors may realize a negative premium. Our long-term return forecast for commodities is 5.5%.

[1] Phalippou, Ludovic and Olivier Gottschalg, 2009, "the Performance of Private Equity Funds." *Review of Financial Studies*, vol. 22, no 4 (April) : 1747–1776.

[2] Kaplan, Steven N, and Antoinette Schoar. 2005. "Private equity Performance: Returns, Persistence and Capital Flows." *Journal of Finance*, vol. 60, no 4 (August): 1791–1823.

[3] Robert Harris, Tim Jenkinson, and Steven Kaplan. 2014. "Private Equity Performance: What Do We Know?" *Journal of Finance*, vol. 69, no 5: 1851–1882.

Figure 2: State Street Global Advisors Tactical/Strategic Asset Allocation Returns Forecasts
As of September 2019

Asset Class	Short-term 1 Year Return (%)	Intermediate-term 3–5 Years Return (%)	Long-term 10+ Years Return (%)	Long-term Risk (Std Dev) (%)
Global Equities (ACWI)	7.0	6.7	6.8	14.5
Global Equities (ACWI) ex US	7.3	7.3	7.5	15.2
Global Developed (World)	6.6	6.3	6.4	14.4
Global Developed ex US	6.4	6.3	6.6	15.1
Global Developed ex US Small Cap	7.2	7.0	7.3	15.8
US Large Cap	6.7	6.3	6.2	15.0
US Mid Cap	4.9	6.5	6.5	17.5
US Small Cap	4.7	6.8	6.7	19.1
Europe	7.3	6.6	6.9	15.7
Euro	6.7	6.2	6.5	19.4
Developed Pacific	4.7	5.5	5.8	17.8
Emerging Markets (EM)	10.0	10.3	10.0	21.0
EM Asia	10.5	10.6	10.2	22.2
EM EMEA	9.9	10.8	10.8	19.9
EM LatAm	7.3	7.5	7.9	27.6
Global Equal Weighted	8.9	8.6	6.8	15.3
Global Value Tilted	8.8	8.5	6.7	14.8
Global Minimum Variance	7.7	7.4	7.0	10.7
Global Quality Tilted	8.2	7.9	6.9	13.7
Global Government Bonds	0.2	-0.4	0.5	3.6
Global Corporate	1.8	0.7	2.1	7.2
Non-US Government Bonds	-0.3	-1.0	0.0	3.6
Non-US Corporate Bonds	0.7	0.2	1.2	3.7
US Government Bond	1.6	1.1	1.8	4.9
US Investment Grade Bond	1.9	1.4	2.2	4.3
US High Yield Bond	1.3	2.6	4.1	8.6
US TIPS Bond	0.7	1.0	2.2	6.5
US Long Treasury STRIPS Bond	2.4	-1.1	-0.5	24.0
Euro Government Bonds	-0.4	-1.3	0.1	4.5
Euro Corporate Bonds	0.0	-0.6	0.7	3.8
Euro High Yield Bonds	0.7	0.7	2.3	12.3
Japanese Government Bonds	-0.7	-1.0	-0.5	4.0
Japanese Corporate Bonds	0.1	0.0	0.3	2.0
UK Government Bonds	0.5	-1.2	0.1	7.2
UK Corporate Bonds	1.9	0.9	2.0	6.9
Emerging Markets Bonds	3.1	4.0	5.3	13.4
Global Real Estate (REITs)	4.8	4.0	4.5	17.9
Commodities	5.2	4.5	5.5	15.1
Hedge Funds	5.6	5.8	6.0	5.7
Private Equity	5.7	7.3	7.2	24.7
US Cash	1.9	2.3	2.5	1.0
UK Cash	0.8	1.5	2.2	1.2
EMU Cash	-0.5	0.0	1.5	1.1

The forecasted returns are annual arithmetic averages based on State Street Global Advisors' Investment Solutions Group September 30, 2019 forecasted returns and long-term standard deviations. The forecasted performance data is reported on a gross of fees basis. Additional fees, such as the advisory fee, would reduce the return. For example, if an annualized gross return of 10% was achieved over a five-year period and a management fee of 1% per year was charged and deducted annually, then the resulting return would be reduced from 61% to 53%. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in the local (or regional) currency presented. It does not take into consideration currency effects. The forecasted performance is not necessarily indicative of future performance, which could differ substantially.

Glossary

Basis Point (bps) A unit of measure for interest rates, investment performance, pricing of investment services and other percentages in finance. One basis point is equal to one-hundredth of 1 percent, or 0.01%.

Bloomberg Barclays U.S. Corporate High Yield Index A fixed-income benchmark of US dollar-denominated, high-yield and fixed-rate corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays' emerging markets country definition, are excluded.

Book to Price (B/P) Ratio A valuation metric that takes the ratio of the book value of a company per share to its share price.

Commodities A generic, largely unprocessed, good that can be processed and resold. Commodities traded in the financial markets for immediate or future delivery include grains, metals, and minerals.

Credit Spreads The spread between Treasury securities and non-Treasury securities that are identical in all respects except for quality rating.

Dividend Equities and Dividend Yield Equity securities that pay dividends. A dividend is a distribution of a portion of a company's earnings, decided by the board of directors, to a class of its shareholders. Dividends can be issued as cash payments, as shares of stock, or other property. Equity, also known as stock, is a type of security that signifies ownership in a corporation and represents a claim on part of the corporation's assets and earnings. The dividend yield is the ratio of the dividend paid per share of issued equity over the share price.

Inflation An overall increase in the price of an economy's goods and services during a given period, translating to a loss in purchasing power per unit of currency. Inflation generally occurs when growth of the money supply outpaces growth of the economy. Central banks attempt to limit inflation, and avoid deflation, in order to keep the economy running smoothly.

MSCI World Index The MSCI World Index is a free-float weighted equity index. It includes about 1,600 stocks from developed world markets, and does not include emerging markets.

Nominal Bond Yield The annual income that an investor receives from a bond divided by the par value of the security. The result, stated as a percentage, is the same as the rate of interest the security pays.

Price-to-Earnings Multiple, or P/E Ratio A valuation metric that uses the ratio of the company's current stock price versus its earnings per share.

Private Equity An umbrella term for large amounts of money raised directly from accredited individuals and institutions and pooled in a fund that invests in a range of business ventures.

Real Interest Rates, or Real Yields An interest rate that takes into consideration the actual or expected inflation rate, which is the actual amount of yield an investor receives. The real rate is the calculation of the "nominal" interest rate minus the inflation rate as follows: Real Interest Rate = Nominal Interest Rate — Inflation.

REITs (Real Estate Investment Trusts) Publicly traded companies that pool investors' capital to invest in a variety of real estate ventures, such as apartment and office buildings, shopping centers, medical facilities, industrial buildings, and hotels.

Tactical asset allocation models Illustrate a dynamic approach to asset management that emphasises exposure to asset classes that are designed to enhance returns or control drawdowns.

Smart Beta A rules-based investment strategy that seeks to capture specific factors in the marketplace that active managers have historically relied on to outperform. These include value, size, low volatility, quality and momentum.

US 3 Month Libor (Cash) Libor, or the London Interbank Offered Rate, is equivalent to the federal funds rate, or the interest rate one bank charges another for a loan. It is used as a reference figure for corporate financial transactions and, increasingly, for consumer loans as well.

Yield Curve (e.g., US Treasury Curve) A graph or line that plots the interest rates or yields of bonds with similar credit quality but different durations, typically from shortest to longest duration. When the yield curve is said to be "flat," it means the difference in yields between bonds with shorter and longer durations is relatively narrow. When the yield curve is said to be "steep," it means the difference in yields between bonds with shorter and longer durations is relatively wide.

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State Street Global Advisors Worldwide Entities

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Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

The value of the debt securities may increase or decrease as a result of the following: market fluctuations, increases in interest rates, inability of issuers to repay principal and interest or illiquidity in the debt securities markets; the risk of low rates of return due to reinvestment of securities during periods of falling interest rates or repayment by issuers with higher coupon or interest rates; and/or the risk of low income due to falling interest rates. To the extent that interest rates rise, certain underlying obligations may be paid off substantially slower than originally anticipated and the value of those securities may fall sharply. This may result in a reduction in income from debt securities income.

Increase in real interest rates can cause the price of inflation-protected debt securities to decrease. Interest payments on inflation-protected debt securities can be unpredictable.

Investing in REITs involves certain distinct risks in addition to those risks associated with investing in the real estate industry in general. Equity REITs may be affected by changes in the value of the underlying property owned by the REITs, while mortgage REITs may be affected by the quality of credit extended. REITs are subject to heavy cash flow dependency, default by borrowers and self-liquidation. REITs, especially mortgage REITs, are also subject to interest rate risk (i.e., as interest rates rise, the value of the REIT may decline).

Investing in commodities entails significant risk and is not appropriate for all investors. Commodities investing entail significant risk as commodity prices can be extremely volatile due to wide range of factors. A few such factors include overall market movements, real or perceived inflationary trends, commodity index volatility, international, economic and political changes, change in interest and currency exchange rates.

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